



Sub Spec
E.B. JINS
03/18/02

#4

COPY OF PAPERS
ORIGINALLY FILED

TITLE: ROCK SIMULATING PEST TRAP

This is a utility patent application based on a provisional patent application (Serial No. 60/241,244) filed on October 18, 2000.

BACKGROUND OF THE INVENTION

1. Field of the Invention:

This invention pertains to pest traps, and, in particular, to pest traps designed to be used in outdoor, visible areas.

2. Description of the Related Art:

Most home and business owners would prefer to place pest traps, when needed, outside their residence or business. Because deadly diseases and filthy conditions are often associated with insects and rodents, the placement of traps inside residences and businesses where they may be in plain view of guests or visitors is undesirable.

In order to use a pest trap outdoors, a protective outer housing is used which houses

1 the poisoned bait or body-piercing trap. Such traps are disclosed in U.S. Patent Nos.
2 4,541,198, 4,550,525, 4,611,426, 4,730,412, 5,040,327, 5,448,852, and 6,082,042.

3 One drawback of such traps is that the outer housings are relatively large structures
4 that are visible at a distance. Because of the negative connotation associated with insect and
5 rodent traps, most homeowners find the visibility of such traps objectionable. Although the
6 traps may be placed behind other objects or covered with dirt to hide them, this is undesirable
7 because it prevents the trapper from easily checking or retrieving the traps.

8 What is needed is a tamper-resistant, inconspicuous, outdoor pest trap that is
9 effectively disguised as a large object typically found in a garden, such as a rock.

11 SUMMARY OF THE INVENTION

12 It is an object of the present invention to provide a pest trap designed for outdoor use.

13 It is another object of the present invention to provide such a pest trap that is tamper-
14 resistant by isolating the poisoned bait or animal trap inside an outer housing to prevent
15 unintentional targets, such as children, pets, and other small animals, from contacting the bait
16 or trap.

17 It is a further object of the present invention to provide a pest trap that is disguised as
18 a large rock, so that it may be placed anywhere in a yard or garden so that customers or
19 neighbors are not privy to the fact that a pest problem may exist.

20 These and other objects of the invention which will become apparent are met by a
21 tamper-resistant pest trap that has an outer housing that simulates a rock typically found in
22 the garden or landscape areas around a residence or building. The outer housing is a hollow

1 structure with a large cavity formed therein in which a holding tray may be placed. Formed
2 on the sides of the outer housing are small pest openings that enable insects or small rodents
3 to enter the large cavity during use. In the preferred embodiment, two first and second side
4 tunnels are formed on the sides of the outer housing which bend and terminate inside the
5 outer housing to form a hidden pest opening thereby preventing visibility of the pest openings
6 when standing adjacent to the outer housing. The outer housing has a flat bottom surface so
7 that the pest trap may be set up on the soil. In one embodiment, a large opening is formed in
8 the bottom surface which communicates with the large cavity formed in the outer housing so
9 that the holding tray may be selectively inserted into the large cavity. During assembly,
10 suitable bait or a trap is placed into the holding tray before the tray is inserted into the large
11 opening and secured in position inside the outer housing. When pests enter the outer housing
12 and ingest the poison or activate the trap, they are killed inside the outer housing. In another
13 embodiment, the outer housing comprises a lid member pivotally attached along one edge of
14 a flat bottom with the holding tray affixed to the top surface of the bottom member.

15 In both embodiments, an optional stake and hold-down chain may be provided which
16 are used to secure the outer housing on the ground to prevent its movement.

18 BRIEF DESCRIPTION OF THE DRAWINGS

19 Fig. 1 is a perspective view of the pest trap disclosed herein, appearing to be a real
20 rock placed in a yard.

21 Fig. 2 is a front elevational view of the invention.

22 Fig. 3 is a rear elevational view of the invention.

1 Fig. 4 is a right side elevation view of the invention.

2 Fig. 5 is a left side elevation view of the invention.

3 Fig. 6 is a bottom plan view of the invention.

4 Fig. 7 is a perspective view of the bait/trap holding tray that may enclose bait or a
5 spring-loaded trap.

6 Fig. 8 is a side elevational view of the invention being held in place by the optional
7 stake and chain.

8 Fig. 9 is a front elevational view of a second embodiment of the invention comprising
9 a pivoting lid member attached to a bottom member.

10 Fig. 10 is a side elevational view of the second embodiment shown in Fig. 9 showing
11 the lid member revised to allow the user access to the cavity.

12 Fig. 11 is a perspective view of the second embodiment of the invention in which the
13 pest opening comprises a plurality of small openings for insects.

14

15 **DESCRIPTION OF THE PREFERRED EMBODIMENT(S)**

16 Referring to Fig. 1-11, there is shown and described a pest trap 10 designed to
17 simulate a rock in a garden or landscape area 95. The pest trap 10 includes a hollow outer
18 housing 11 with a large cavity 45 formed therein. Formed on the outer housing 11 are side
19 tunnels 12, 14 that lead to the large cavity 45. Pest openings 13, 15 are formed on the sides
20 of the outer housing 11 adjacent to the terminating inside surface of the side tunnels 12, 14
21 through which a rodent 30 or insects 31 may enter and/or exit the outer housing 11.

22 As shown in Fig. 6, the bottom surface 16 of the outer housing 11 is flat so that the

1 outer housing 11 may be positioned on flat soil. Formed centrally on the bottom surface 16 is
2 an opening 17 which provides the user access to the cavity 45. During assembly a holding
3 tray 20 is inserted into the opening 17 and extending into the large cavity 45. An attachment
4 means is provided for selectively attaching the holding tray 20 inside the opening 17.

5 In the preferred embodiment, the outer housing 11 is made of 1/8 inch cross-linked
6 polyurethane and is gray in color with black flakes to simulate a "one" to "three man" size
7 granite rock. The outer housing 11 measures approximately 15 inches in length, 11 inches in
8 width, and 6 inches in height, and weighs approximately 2 lbs. In the preferred embodiment,
9 the two side tunnels 12, 14 are approximately 2-1/2 inches in width and height and three to
10 six inches in length. The interior surfaces of the side tunnels 12, 14 are ragged so that the
11 side tunnels 12, 14 appear as natural crevices or openings in a large rock. Each side tunnel
12 12, 14 is slightly curved so that the openings 13, 15 are invisible when the pest trap 10 is
13 viewed from the side.

14 As mentioned above, the pest openings 13, 15 are designed to allow a rodent 30 such
15 as a mouse or rat, to enter and exit the outer housing 11. In a second embodiment, shown in
16 Fig. 11, the pest openings comprise a plurality of small openings 48 designed to allow insects
17 31, such as ants or termites, to enter the outer housing 11. Larger insects or animals are
18 unable to enter the outer housing 11.

19 The holding tray 20 is designed to completely close off the opening 17. In the
20 preferred embodiment, the holding tray 20 is rectangular with a flat bottom surface with four
21 side walls 22 that extend upward therefrom. A longitudinally aligned rearward section 21A
22 is formed on one end and a tab 24 is formed on the opposite end of the bottom surface 21.

1 Formed inside the holding tray 20 is an open cavity 37 in which suitable poison 55 or trap 60
2 may be placed

3 In the preferred embodiment, attachment means are used to securely attach the
4 holding tray 20 over the opening 17. In the referred embodiment, the attachment means
5 includes is a slot 19 formed on one side of the opening 17 which receives the tab 24 on the
6 holding tray 20. During assembly, the holding tray 20 is placed into the opening so that the
7 tab 24 engages the slot 19. A suitable connector 23 is used to selectively affix the rearward
8 extending section 21A of the bottom surface 21 of the holding tray 20 to the bottom surface
9 16 of the outer housing 11.

10 In another embodiment shown in Figs 9 and 10, the outer housing (denoted 11')
11 comprises a lid member 80 pivotally attached along one edge to a flat bottom member 90.
12 The lid member 80 has an outer surface with suitable color and texture to simulate a large
13 rock. Like outer housing 11, tunnels 82, 84 are formed on the outer housing 11' which bend
14 and extend interiorly and terminate at two opposite side openings 86, 88 so that a pest may
15 enter the cavity 89 formed inside the outer housing 11' when the lid member 80 is closed
16 over the bottom member 90. The holding tray (denoted as 20') is fixed to the bottom
17 member 90 so that the user gains access to the poison 55 or trap 60 by opening the lid
18 member 80. An optional latch 92 and pin 94 may be attached to the lid member 80 and
19 bottom member 90 to lock them together during use.

20 As stated above, a suitable poison 55 or trap 60 is placed inside the open cavity 37,
21 37' on the holding tray 20, 20', respectively. Once the poison 55 or trap 60 is positioned and
22 reset inside the holding tray 20, 20', the holding tray 20, 20' is then disposed inside the cavity

1 45, 89 and the lid member 80 is closed over the bottom member 90 so that a pest which
2 enters the cavity 89 has access to the poison 55 or trap 60.

3 When the desired pests are insects 31, the small side opening 13, 15 can be replaced
4 with a plurality of small insect-size openings 48, formed at the end surfaces of the two
5 tunnels 12, 14, as shown in Fig. 11. An insecticide may be used in place of a rodenticide or
6 trap.

7 The outer housing 11 may be held in place on the ground 40 by an optional stake 26
8 that tautly tethers the outer housing 11 to the ground 40 with one or two short chains 27, 28,
9 as shown in Fig. 8. Bolts 32 and nuts 34 are inserted through holes 33, 35, respectively,
10 formed on the bottom surface 16 of the outer housing 11. In the preferred embodiment, the
11 stake 26 is a round rod approximately $\frac{1}{4}$ inch in diameter and 16 inches in length which
12 maybe easily driven into the ground. The chains 27, 28 are approximately 8 inches in length.

13 During use, pests are attracted to the smell of the poison 55 or bait 61 located in the
14 holding tray 20, 20'. The pest enters either one of the two side openings 13, 15, or 48 through
15 the tunnels 12, 14, or 84, respectively. Once the pest enters the outer housing 11, 11' it has
16 access to the poison 55 or bait 61 in the holding tray 20, 20'. The pest eats the poison 55 or
17 eats the bait 61 causing activation of the trap 60 and dies relatively quickly inside the outer
18 housing 11, 11'. The operator of the pest trap 10 then removes the holding tray 20, 20' to
19 gain access to the cavity 45, 89 to remove the dead pest from the outer housing 11, 11', add
20 more poison 55 or bait 61 or re-set the trap 60 in the holding tray 20, 20'.

21 In compliance with the statute, the invention described herein has been described in
22 language more or less specific as to structural features. It should be understood, however,

1 that the invention is not limited to the specific features shown, since the means and
2 construction shown, comprised only of the preferred embodiments for putting the invention
3 into effect. The invention is therefore claimed in any of its forms or modifications within the
4 legitimate and valid scope of the amended claims, appropriately interpreted in accordance
5 with the doctrine of equivalents.